

**CONFIDENTIAL****Office Memorandum • UNITED STATES GOVERNMENT**

TO : The Files

DATE: 3 May 1957

FROM : *File RD-79 T.O. 7*

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SUBJECT: (E/CS-3()) Input Power Cables and Recorder TB E-701, *RD-79*

1. Input power cables from the aircraft/switch/fuse indicator box to the input of the rack filter as fabricated under RD-79, T.O. VII, have been fabricated of #20 wire on the basis of the wire size contained in the original cable (W-1205).

a. The use of this size wire under the maximum length installation conditions will result in about a 4-volt drop in the 28 volt supply. This is considered as resulting in marginal operating voltages, except when the actual length used is under 5-feet.

b. The contractor has been requested to replace these cables with #14 wire size. Two each of these cables "28VDC INPUT #1 ....9" now in stock are being requisitioned back to the contractor for replacement.

c. This change will require the contractor to procure the following additional material:

(1) 4650 ft., 2 conductor #14 stranded, shielded cable,

(2) 93 replacement connectors.

d. Contractor will re-utilize the presently prepared sleeving and cable markers.

e. No change in stock numbers are involved.

2. Internal Recorder Wiring change:

a. Cable arrangements for the E/CS-3() configurations have been largely based upon the examination of Figure 1-13, Figure 4-1, and physical check out of cable assemblies W-1203, W-1202, and W-1205. Early check out established that when 28 vdc was applied to recorder receptacle J-702 pins A and B that recorder motors and internal oscillator filaments were in an operative condition.

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b. The two recorder units furnished the contractor have been previously established as having a different receptacle configuration, in that a provision has been made for a cable plug retainer feature.

c. However, when voltage was applied to J-702 pins A and B of these recorders it was found that the motor circuits were not completed. Examination indicated that Recorder Terminal Board #701, as contained in Figure 1-13, had been re-arranged so that the positive bus contained in this figure is now in two segments. Comparison with a random selected recorder indicated that this condition was also true. A check with [ ] of T&I Section established that the field has encountered both the TB as reported above and the TB as shown in Figure 1-13. [ ] indicated that the two section boards were strapped in the field for his applications.

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3. It is considered necessary that each recorder used with the E/CS-3 configuration have its terminal board strapped to conform with Figure 1-13.

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